HMA

HEALTH MANAGEMENT ASSOCIATES

Cost Effectiveness of Michigan's Single Point of Entry or Long Term Care Connection Demonstration

PRESENTED TO

OFFICE OF LONG TERM CARE SUPPORTS AND SERVICES

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH

FINAL REPORT – APRIL 30, 2009

Research and Consulting in the Fields of Health and Human Services Policy, Health Economics and Finance, Program Evaluation, Data Analysis, and Health System Restructuring

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EXECUTIVE SUMMARY

Michigan's Single Point of Entry (SPE) or Long Term Care Connections (LTCC) pilot is currently operating in 34 Michigan counties plus a major portion of Wayne County, including Detroit. The goals of the initiative include providing assistance to individuals seeking long term care services (and their families) to enable them to receive unbiased information and find appropriate services that meet their care needs. An expected result of the initiative is that individuals will receive services that better meet their needs and also that Medicaid-funded long term care services will be used more effectively and efficiently. One expectation is that Medicaid expenditures for long term care services, especially institutional long term care, will decrease or will increase at a slower rate.

Health Management Associates (HMA) was contracted by the state to assess the cost effectiveness of the LTCC pilot. This cost effectiveness evaluation is based on data collected when the LTCCs had relatively recently assumed their full role in the long term care services process. Therefore the results of this analysis are only early indicators of potential cost effectiveness. Some of the early results of the cost effectiveness analysis include the following:

- Through fiscal year 2009, long term care costs for LTCC regions are not lower than for non-LTCC regions. There is a slight difference for LTCC regions outside of Detroit, but even in these areas the reduction from trend in long term care costs is less than the cost of the LTCC initiative.
- In the fourth quarter of fiscal year 2008, the reduction in Medicaid-financed NF days is 1.37% greater in the LTCC counties than in the non-LTCC counties.
- In fiscal year 2008 there was a net decrease in the number of MI Choice (home and community-based services waiver) days in the LTCC counties while there was an increase in the number of waiver days in the non-LTCC counties.
- The adult home help component of long term care increased more in the LTCC regions than in other counties and leads to a higher overall cost of long term care services in the LTCC regions.
- The LTCCs are more likely to find that individuals seeking nursing facility (NF) care do not meet the required minimum level of care threshold. If this pattern continues over time, there will be additional future savings as fewer individuals enter Medicaid-funded NF services. Based on the level of care determinations performed in the first half of fiscal year 2009, the expected savings are about $6 million per year.
- When compared with results for the non-LTCC counties, the LTCC regions were very successful in assisting individuals in transitioning out of nursing facilities to the MI Choice waiver or to the community with non-waiver supports in the last quarter of data provided for this analysis. The additional transitions accomplished in FY 2008 by the

LTCCs beyond the level accomplished in other areas should result in an annual savings of $11.3 million in total long term care costs.

There are early indications that by the end of FY 2008 the LTCCs had a positive impact on reducing long term care costs outside of Detroit, but not sufficient to cover the costs of the LTCC initiative. As the LTCCs are serving as "gatekeepers" through the Level of Care Determination (LOCD) process, there will be future savings as the number of individuals entering nursing facilities with Medicaid support declines. In addition the LTCCs have been very successful in transitioning more Medicaid nursing facility residents back to the community than occurs in other areas. These transitions will continue to produce savings for the Medicaid program. These data on transitions and LOCDs are more recent than the cost data used in this analysis by six months. While the transitions and LOCD data indicate that there should be net savings in fiscal year 2009, the long term financial impact of the LTCC agencies requires review at a point when additional data are available for longer time periods after the LTCCs were fully operational.

BACKGROUND

Current systems of long term care services are fragmented; individuals often have little idea of what is available, where to find it, or for what assistance they may qualify. Navigating through the maze of programs and providers, they face knowledge gaps and barriers to finding the best mix of services and supports to meet their needs, putting them at risk of making critical decisions without full knowledge of their options. Most people do not consider long term care until faced with a crisis situation and there is no concerted effort to assist individuals with personal planning for long term care. These factors are likely to keep people on the traditional paths to institutional care, premature and unnecessary expenditure of assets, and eventual Medicaid eligibility. Michigan's LTCC pilot was created to address these issues and also create a more cost effective system of care. The LTCC pilot operates in four geographic areas that encompass 34 Michigan counties and a major portion of Wayne County, including Detroit.

The legislature and executive branch both have an interest in an evaluation of the program, including an assessment of the cost effectiveness of the initiative. The general evaluation report will assess the effect of the LTCC initiative in five areas identified by consumers, providers and government as goals for the initiative:

1. Consumers, caregivers, and stakeholders have access to comprehensive information on long-term care options for current and future planning.
2. Consumers are able to explore and understand long-term care options with guidance from unbiased counselors.
3. Consumers receive assistance navigating through the long term care system and make informed choices about care settings, licensing, financing and benefits eligibility.
4. The LTCC project creates an efficient, effective and responsive centralized hub to access long-term care services.

5. The LTCC entities have effective working partnerships with local stakeholders that build the capacity to identify, evaluate and respond to unmet and changing consumer needs, fostering continuous improvement for long-term care system change.

The general evaluation of the LTCC pilot has been undertaken by the Michigan Public Health Institute (MPHI). This cost effectiveness assessment is a companion to the general evaluation and therefore does not include information on all of the impacts, outcomes and data for the LTCC.

Statutory Requirements

Public Act 634 of 2006 amended PA 280 of 1939, the Social Welfare Act, authorizing the Michigan Department of Community Health (MDCH) to conduct a Single Point of Entry demonstration project.

The new section 109i of the Social Welfare Act requires that MDCH evaluate the performance of the LTCC agencies on an annual basis (subsection 10). Subsections 11 through 14 include additional details on the evaluation of the LTCC initiative and the required reports. In particular, subsection 11 states: "the department of community health shall engage a qualified objective independent agency to conduct a cost-benefit analysis of single point of entry, including, but not limited to, the impact on Medicaid long-term care costs.."[1]

This cost-effective evaluation is designed to meet the requirement of PA 634 to report the cost effectiveness of LTCC initial operations.

LTCC Geographic Areas

After a competitive procurement process in which the geographic areas for the LTCC demonstration were not predetermined, MDCH contracted with four entities to serve the following geographic areas:

Detroit/Wayne:	City of Detroit, Grosse Pointe (GP), GP Farms, GP Park, GP Shores, GP Woods, Hamtramck, Harper Woods, Highland Park.
Southwest Michigan:	Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren counties.
West Michigan:	Allegan, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, and Ottawa counties.
Upper Peninsula:	Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Ontonagon, and Schoolcraft counties.

Because the LTCC demonstration is a pilot that does not serve the entire state, the cost effectiveness evaluation compares results in the LTCC catchment areas with trends in other Michigan counties. The rest of the state, including the components of Wayne County not covered by the LTCC demonstration, constitutes the non-LTCC regions for this analysis.

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[1] The legislation also states that "the cost benefit analysis required in this subsection shall include an analysis of the cost to hospitals when there is a delay in a patient's discharge from a hospital due to the hospital's compliance with the provisions of this section." This component of the analysis is included in MPHI's general evaluation of the LTCC initiative rather than the cost benefit analysis performed by HMA.

LTCC Implementation Schedule

The LTCC components were not all implemented at the same time. Several milestones in the LTCC implementation are important to the evaluation of the LTCC demonstration, as follows:

October 2006: The new Long Term Care Connection entities began to provide information and referral services in October 2006.

January 2007: Public Act 634 of 2006, which authorized the role of the demonstration sites as true single points of entry, was effective January 4, 2007.

January to April 2007: Between January and April of 2007 the four sites began to provide Options Counseling to individuals seeking long term care services.

November 2007: As of November 2007 the LTCCs took on the role of the sole agency within each LTCC region to assess a Medicaid beneficiary's functional/medical eligibility via the Michigan Medicaid Nursing Facility Level of Care Determination (LOCD) for Medicaid-reimbursed care in nursing facilities and the MI Choice Waiver program.

EVALUATION MODEL

Health Management Associates (HMA) worked for several months with the Office of Long Term Care Supports and Services (OLTCSS) and Medical Services Administration (MSA) within MDCH and with MPHI to develop the evaluation hypotheses for the cost effectiveness evaluation and to identify the available data to test the evaluation hypotheses.

The LTCC is being implemented in an extremely dynamic environment. New features of long term care services that are being implemented at the same time include self-determination and person-centered planning. In addition, Medicaid policies regarding waiting lists for home and community-based waiver services are being modified. Because of these and many other external variables, HMA proposed to track parallel data on the non-LTCC counties for comparative purposes.

Evaluation Scope

The HMA cost effectiveness analysis is designed to determine whether, as a result of the operation of the LTCC demonstration, the Michigan Medicaid program experiences reductions in long term care costs that equal or exceed the amounts paid to the LTCC agencies for the Single Point of Entry work. Given the mitigating factors noted above, we determined that this analysis should also look at intermediate indicators of success that might show whether savings are expected after the program has been in operation for a longer period of time.

The evaluation methodology is described in Appendices A through C. The evaluation hypotheses are listed in Appendix A to this report. This phase of the evaluation focuses on those components of hypotheses one through three for which data were available. Appendix B provides an overview of the data that were collected. Appendix C provides an overview of the analytical methodology and information on data sources used for this analysis.

Mitigating Factors

A key factor that impedes a robust cost effectiveness analysis is the short timeframe between full implementation of the LTCC functions and the date for the evaluation report. The claims data we received reflected dates of service through December 31, 2008 that had been paid as of April 1, 2009. However we were only able to use data through September 2008.[2] As previously noted, it was not until November 2007 that the LTCC agencies began performing the level of care determinations for individuals seeking Medicaid assistance with nursing facility care or seeking services through the MI Choice waiver. The work of the LTCCs (through information and referral, Options Counseling and LOCD) would be expected to reduce the number of individuals entering the Medicaid long term care system. While the LTCCs may also affect the number of transitions out of nursing homes in their areas, their role relates primarily to entry into long term care services. Since these "front door" services do not affect individuals already receiving Medicaid-financed long term care services, the impact on total costs is expected to occur slowly, even if the LTCCs are successful.

Since the cost effectiveness analysis is occurring so soon after the full implementation of the LTCC pilot program, the full impact of LTCC on LTC costs could not be determined for this initial report. For example, while the LTCCs began doing level of care determinations only in November 2007, the data on nursing facility days and costs end with September 2008. This allows limited opportunity to measure any LTCC impact on the appropriate use of these services.

HYPOTHESES AND RESULTS

The results are organized based on the cost effectiveness evaluation hypotheses. These evaluation hypotheses are listed in Appendix A. For most components of this analysis, HMA analyzed baseline data beginning with October 2005, the start of Michigan's 2006 fiscal year. This starting point was chosen to provide a full year of data before the LTCCs began any operations so that any trends prior to implementation would be assessed. (See implementation schedule above.) To the extent possible, appropriate "completion factors" were applied to the data. These factors provide an estimate, based on historical trend, of the extent to which Medicaid services have been provided for a particular month that have not yet been reimbursed by the Medicaid program. These services would be missing from our data files. (See Appendix C for additional information on this aspect of the methodology.)

[2] It is expected that not all claims for services rendered between October 2008 and December 2008 will have been paid by April 2009. MDCH provide HMA with a file of "completion factors" based on historical lags between date of service and date of payment by provider type. This completion factor data was from fiscal year 2004. While the factors worked well for some provider types, it appears that the lag from date of service to date of payment may have changed significantly in the last four years. In addition, it appears that there is geographic variation in the claims lag which would distort the comparison of trends between LTCC regions and non-LTCC regions.

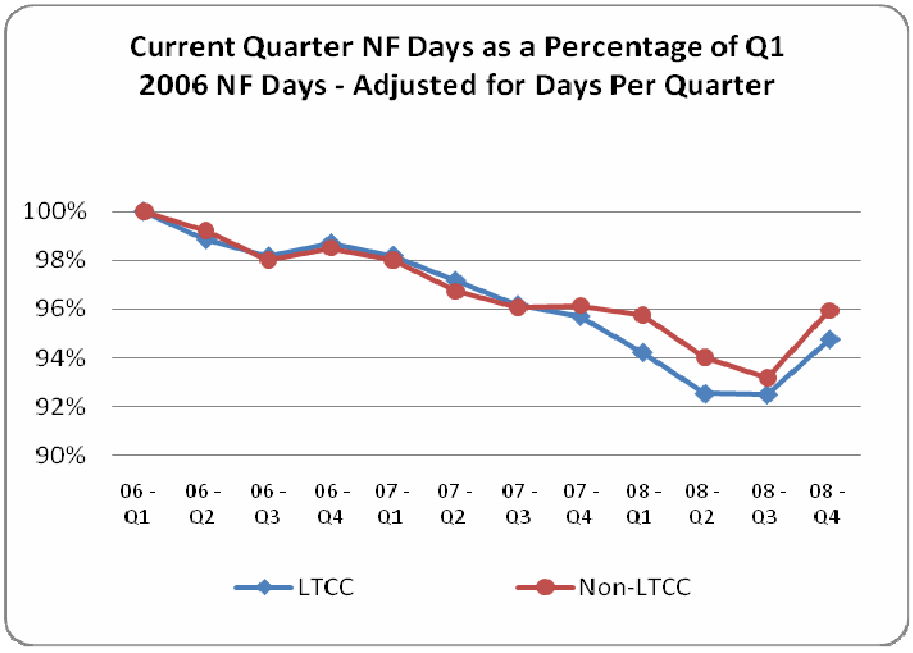
Hypothesis 1a: Movement from institutional to non-institutional Long Term Care

The primary hypothesis is that Options Counselors will provide consumers with information and assistance in understanding and accessing community-based services, which will result in a decrease in Medicaid-reimbursed nursing facility bed days and more clients served by Medicaid through either the MI Choice waiver or other community-based services such as Adult Home Help. This is expected to result in a decrease in Medicaid-reimbursed nursing facility (NF) days, increased participation in the MI Choice waiver (if possible within the local ceiling) and increased Adult Home Help utilization. HMA analyzed the trends over time and by LTCC and non-LTCC regions for Medicaid reimbursed NF days, MI Choice waiver days, and Adult Home Help days of service.

Nursing Facility Days

The first data analysis is the number of days of nursing facility care by quarter for the LTCC and non-LTCC regions. As previously noted the LTCC agencies began Options Counseling in the early part of 2007 and assumed responsibility for the Level of Care Determinations in November 2007. The hypothesis is that particularly after November 2007 LTCC should result in a decrease in the number of nursing facility (NF) days relative to the trend that otherwise would exist. For both the LTCC and the non-LTCC areas of the state, there was a small decline in the number of Medicaid nursing facility days over the ten quarters covered by this review. Given the fact that there is a larger baseline in the non-LTCC areas and also that the change is so small, we chose to then look at the *percentage change* in the number of NF days from the first quarter of fiscal 2006 (October 2005 to December 2005) to subsequent quarters separately for the LTCC and Non-LTCC regions, as reflected in Figure 1. The data were also adjusted based on the number of days in each fiscal quarter.

Figure 1



The data for NF days show that a downward trend in the use of Medicaid-funded nursing facilities existed prior to the implementation of the LTCC pilot (which began in the second quarter of fiscal 2007). That prior downward trend was nearly identical between the non-LTCC counties and the LTCC pilot areas.

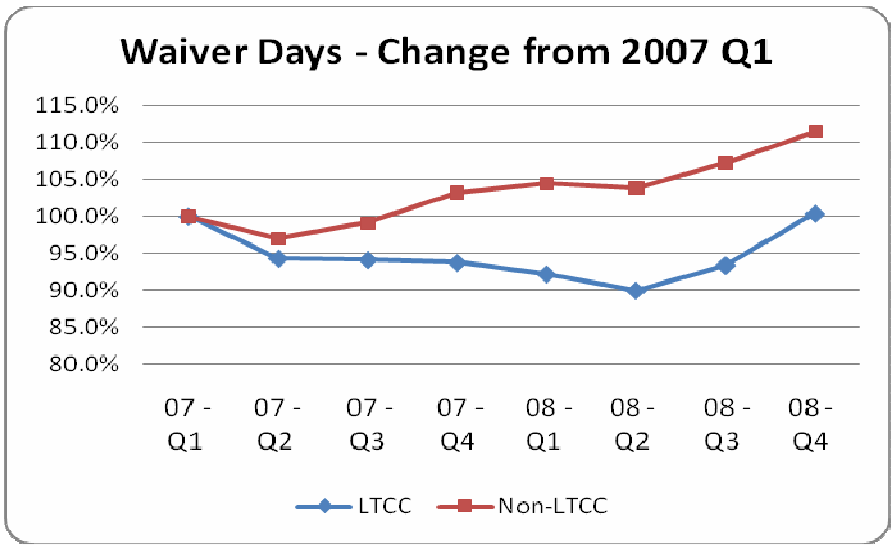
Beginning with the fourth quarter of fiscal year 2007 the reduction in NF days is consistently greater in LTCC counties than in non-LTCC regions.[3] In the fourth quarter of fiscal year 2008 there is a 1.37% difference in the reduction in NF days between the LTCC regions and the non-LTCC regions. *The data support the hypothesis of a reduction in NF days in the LTCC regions beyond the trend that otherwise exists.* While the reduction in NF days offers promise of savings, there are expected offsetting cost increases in other components of long term care services, such as the MI Choice waiver and Adult Home Help.

MI Choice Waiver Services

The hypothesis states that there might be an increase in MI Choice waiver enrollment in the LTCC regions if there was room within a waiver ceiling to expand enrollment. In addition, if the LTCCs were successful in increasing the number of individuals transitioned from NFs, there would be an increase in the funding for and use of waiver services. (Michigan allows an increase in waiver funding if individuals are transitioned from NFs.) The nursing facility transitions are evaluated separately below as part of hypothesis 1b.

MI Choice Waiver days of services were increasing at a faster rate in the LTCC counties than in the non-LTCC counties prior to implementation of the LTCC initiative. (Data not shown.) Since the LTCC agencies began options counseling in the second quarter of fiscal year 2007, the first quarter of fiscal year 2007 is the baseline to assess the impact of the LTCC initiative. As shown in Figure 2, the number of days of waiver services has actually declined in the LTCC regions.

Figure 2

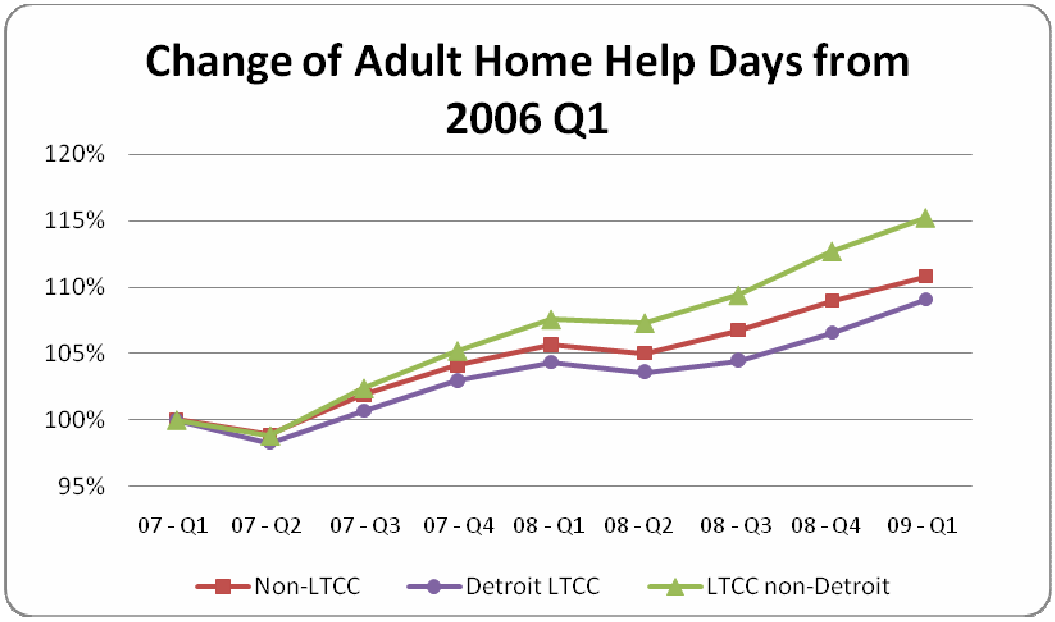


[3] The data show an increase in NF days for the 4th quarter of fiscal year 2008. HMA believes that this may be attributable to use of "completion factors" that overstate the number of NF days of care that had not yet been compensated as of April 1, 2009.

Adult Home Help

The evaluation hypothesis stated above also predicts an increase in the use of adult home help (AHH) services in the LTCC regions. For both LTCC and non-LTCC areas there was an increase in total utilization of AHH services, as seen in Figure 3.

Figure 3



The increase is nearly identical for the LTCC and non-LTCC areas in the aggregate, which is contrary to the initial evaluation hypothesis. However the Detroit LTCC had a lower rate of increase in Adult Home Help utilization than any other area, while the non-Detroit LTCCs show a higher rate of growth in Adult Home Help days of service.

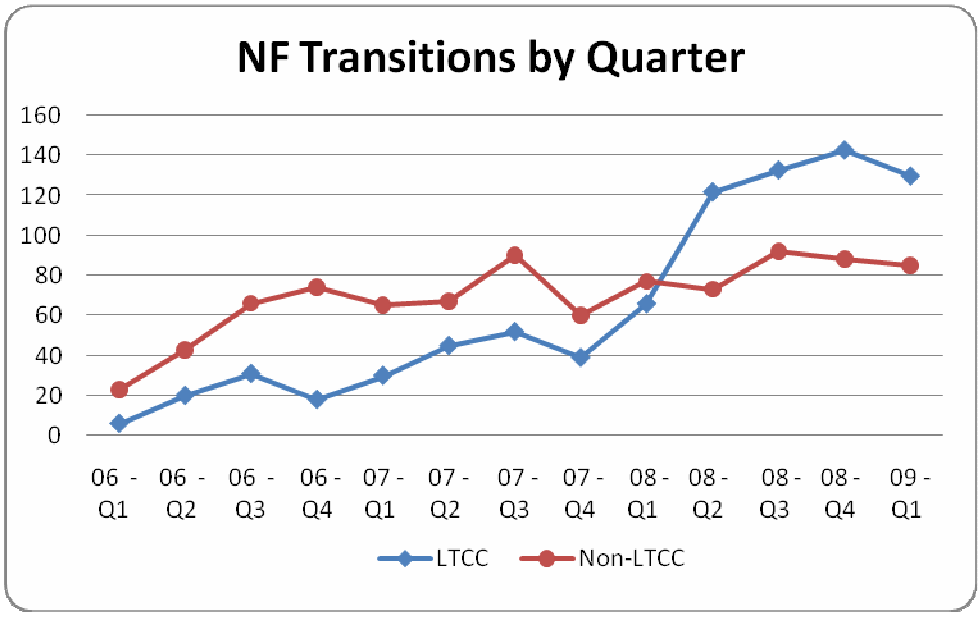
Hypothesis 1b: Increased NF transitions

A specific way in which the LTCC programs can affect long term care costs is to increase the rate at which Medicaid residents that are already in nursing facilities are transitioned either to the MI Choice home and community based services waiver, or to the community with non-waiver supports. The HMA analysis looked at transitions in the aggregate and separately for transitions to the waiver and transitions to the community without waiver services. While Centers for Independent Living (CILs) and the MI Choice waiver agents are the only entities that receive compensation for their role in facilitating transitions, LTCCs can play a key role in these transitions. The LTCCs can work with NF residents to accomplish a transition to the community without involving any other organization, or they can work with a CIL or waiver agent to accomplish a transition.

Figure 4 shows that in the aggregate there has been a great increase in the number of NF transitions over the past three years, in both the LTCC and non-LTCC regions of the state. The data included NF transitions through the October-December 2008 quarter (Q1 of fiscal year 2009). Fig-

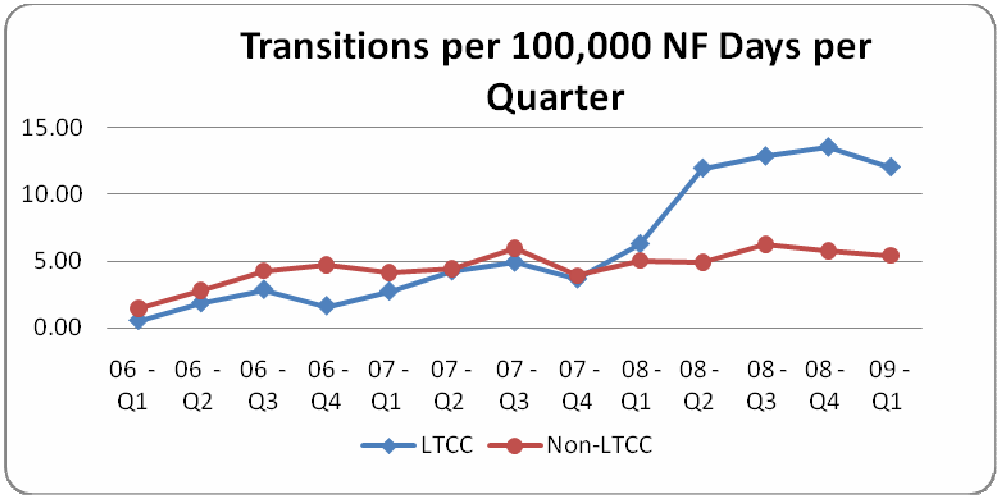
ure 4 shows that beginning in the second quarter of fiscal year 2008 (January to March 2008) the LTCC regions have had a far greater number of NF transitions than the non-LTCC regions.

Figure 4



Since the non-LTCC regions have more nursing facility beds than the LTCC regions, we chose the number of transitions per 100,000 nursing facility days as a unit of comparison. As shown in Figure 5, the LTCC areas have had a consistently higher rate of transitions than the LTCC regions beginning with the period January to March 2008, which is the 2nd quarter of fiscal year 2008.

Figure 5



The transition data included the location to which the Medicaid nursing facility resident was transitioned. There was a distinct difference in the nature of the transitions between the LTCC regions and the non-LTCC regions. From October 2007 to December 2008, transitions to the MI Choice waiver accounted for 76% of the total transitions out of nursing facility beds in the non-LTCC regions. In the same time period for the LTCC regions, transitions from a nursing facility

to the MI Choice waiver accounted for only 35% of all transitions. Transitions to the community with adult home help services or with no Medicaid-supported long term care services were predominant in the LTCC regions.

There are significant future savings attributable to the higher level of transitions. If transitions in the LTCC areas had occurred at the same rate as the non-LTCC areas, there would have been about 290 fewer transitions during calendar 2008. While many of those transitioned continue to receive services from the MIChoice waiver or adult home help services, the cost of services in the community is significantly lower than the cost in the institutional setting. For the first quarter of fiscal year 2009 the average monthly cost of waiver services was $1,170 and the average monthly cost of adult home help services was $347. By contrast, the average cost of nursing facility services for a month was $4,796. A conservative estimate of the impact of the increased number of transitions is a savings of $3,000 per month per person transitioned. Analysis of Medicaid nursing facility claims data indicates that the average individual is in a NF for 13 months after they become a Medicaid enrolled NF resident. So the 290 additional transitions would be expected to reduce costs by $11.3 million from what would otherwise have occurred.

It should be noted that over time the number of transitions would be expected to decline. If the LOCD process and the Options Counseling successfully divert individuals that would otherwise have entered nursing facilities, there will be fewer candidates for NF transitions. However at that point the proportion of Medicaid nursing facility days and costs would also be significantly lower in the LTCC regions.

Hypothesis 2: Impact on costs of LTC services

Hypothesis 2 states that changes in utilization will result in more persons served for the same or fewer dollars and that there would be a net savings even when the changes from trend in the costs of long term care services were offset by cost of LTCC system.

Components of Long Term Care Costs

The data we collected on long term care spending included the following components: Nursing Facilities, including nursing homes, county medical care facilities and hospital long term care units; Adult Home Help; MI Choice waiver services; hospice services; case management fees for Department of Human Services (DHS) and Area Aging Agencies (AAAs); private duty nursing; adult foster care (AFC) stipends; home health agencies; and PACE (Program of All-Inclusive Services for the Elderly).

Ultimately we concluded that private duty nursing and the use of hospice care was not as likely to be affected by the LTCC program. For this analysis the term "total long term care spending" includes these components: nursing facilities, Adult Home Help, MI Choice waiver services, PACE, home health agencies, AFC stipends, and case management fees for DHS and the AAAs. (This is a change from the preliminary analysis performed by HMA.)

Trends in Total Long Term Care Spending

MDCH staff provided payment data by county, age band and quarter for all of these services. They also either provided or applied historical "completion factors" by provider type that we used to estimate the dollar value of claims for reimbursement that would not have been yet paid

when the claims data were pulled for this analysis. The preliminary report in this series provided analysis of the trends from the initial quarter of data (the first quarter of FY 2006). The FY 2006 data was important for determination of any underlying historical trend in long term care costs and utilization that might be either more favorable or less favorable for the LTCC regions. The preliminary analysis did not show such differences. Therefore for this analysis we use the first quarter of FY 2007 as the starting point.

Figure 6 shows by quarter the trends in the change in total long term care spending from the first quarter of FY 2007. Data for nursing facilities are adjusted based on the number of days in each quarter. As Figure 6 shows, long term care spending has actually increased at a greater rate in the LTCC regions than in the non-LTCC regions.

Figure 6

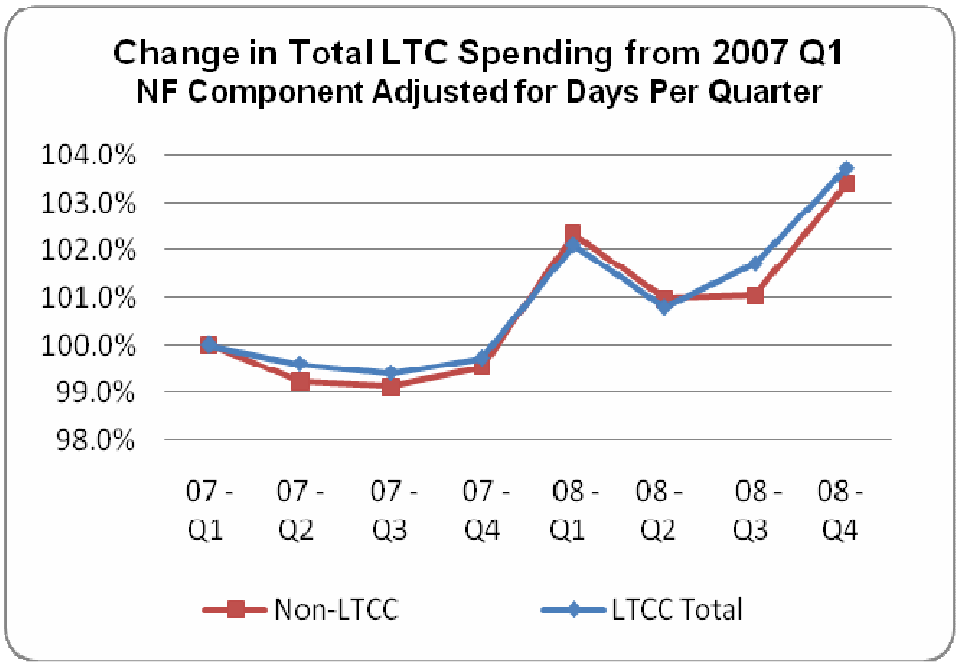
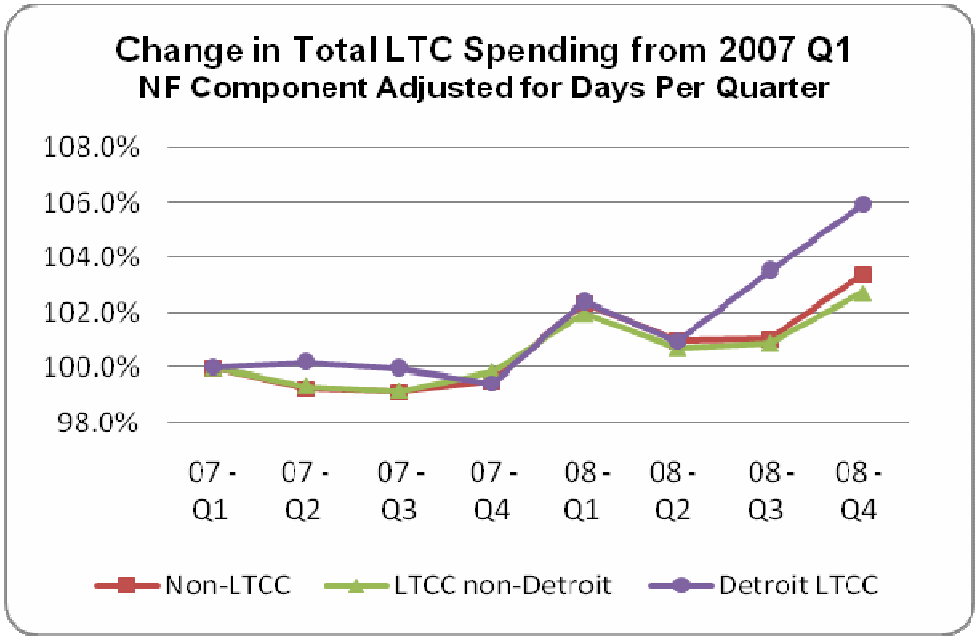


Figure 7 shows that the recent trends are very different in the Detroit LTCC area than in the other LTCC regions. In the non-Detroit LTCC regions the growth in long term care spending is slightly lower than for the non-LTCC regions.

Figure 7



Nursing Facility Costs

MDCH provided data to HMA on the nursing facility rate increases that occurred during the period of this analysis. Figure 8 reflects the trend in NF spending when adjusted for the impact of the NF rate increases and the variance in the number of calendar days in the fiscal quarters.

Figure 8

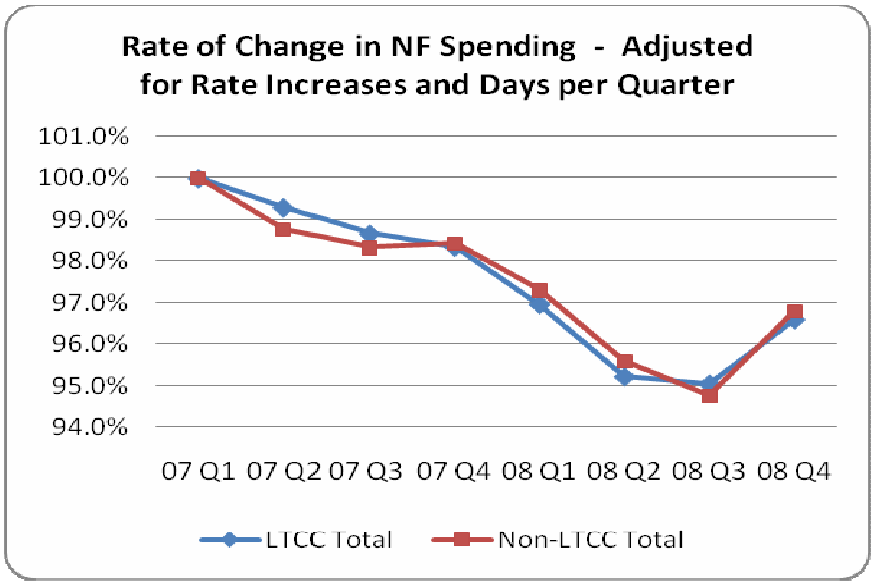
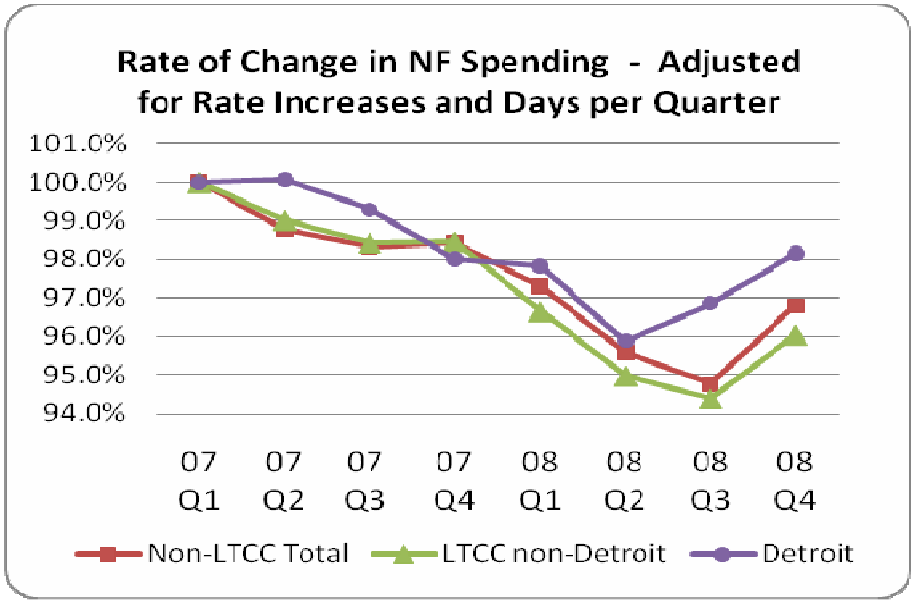


Figure 8 shows that there is very little difference in the nursing facility spending trends between the LTCC and non-LTCC regions. However Figure 9 shows that there is a difference between LTCC regions, which is also reflected in the differences in total long term care spending.

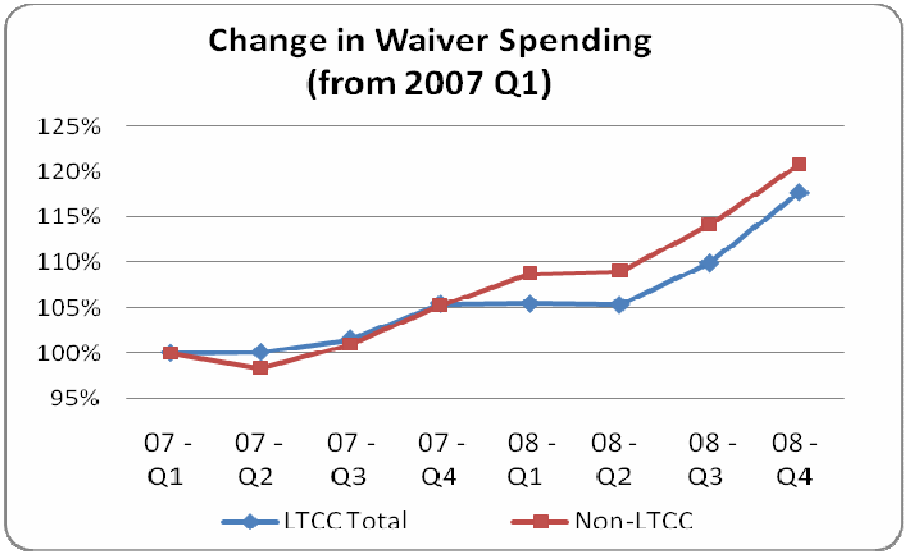
Figure 9



Waiver Costs

For this component of total LTC spending, the growth rate has been higher in non-LTCC regions than in the LTCC regions, which is parallel to the result in waiver days of service reported above.

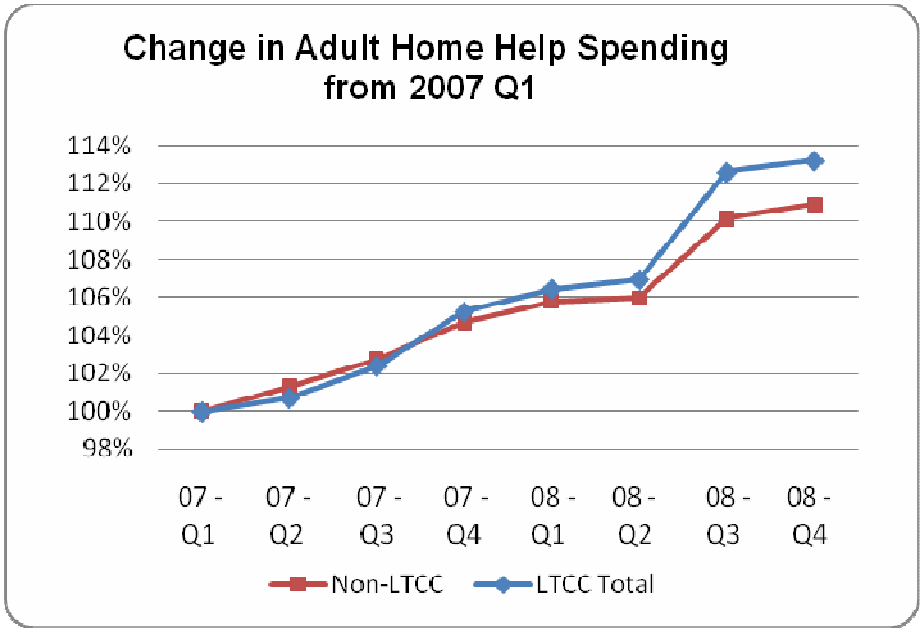
Figure 10



Home Help Dollars

Figure 11 shows that the rate of change in adult home help spending is parallel to the rate of change in adult home help days of service.

Figure 11



Cost of the LTCC System

The amount appropriated for the four LTCC pilot sites both in FY 2008 and in FY 2009 is $14,724,200. Actual spending has been lower than this amount. HMA received detailed expenditure data for all four LTCC sites from October 2006 through June 2008 and summary data through March 2009. The initial data included information about staffing levels for the LTCC sites. While there were some one-time expenditures related to acquisition of equipment in some of the early quarters, the data indicate that the staffing levels for the LTCCs, particularly the number of direct service workers, was still increasing in the April to June 2008 quarter. The total cost for the four sites for the October to December 2007 quarter was $1.94 million, or an annual rate of spending of approximately $7.75 million. LTCC spending for the October to December 2008 quarter was $2.74 million, or an annual rate of spending of $10.95 million. Quarterly spending seems to have leveled off in early FY 2009.

Net Savings – LTCC pilot costs versus reduced LTC spending

For an analysis of the cost effectiveness of the LTCCs the appropriate baseline is the first quarter of state fiscal year 2007, which is October to December 2006. While the LTCCs began to provide information and referral services during that quarter, they didn't begin options counseling until between January and April of 2007 and became responsible for LOCDs in November 2007. When October to December 2006 (2007 Q1) is used as the base period, the LTCC regions have a change from base period costs to cost in the July to September 2008 quarter (2008 Q4) that is 0.3% greater than the change for the non-LTCC regions for the same time period. However for the LTCC regions other than Detroit the trend is favorable – the increase in costs in the LTCC regions is 0.7% lower than in the non-LTCC regions. (See Figure 7 above. The nursing facility component of the data in Figure 7 above is adjusted by the number of days in each calendar quarter so that the differences in the lengths of quarters do not distort the results.)

Long term care spending for the non-Detroit LTCC regions for fiscal year 2008 totals $558 million. If the impact of the LTCC initiative is a reduction in spending for long term care services of 0.7% below trend (the July to September 2008 result), the annualized savings in service costs would be $3.9 million dollars (0.7% of $558 million).

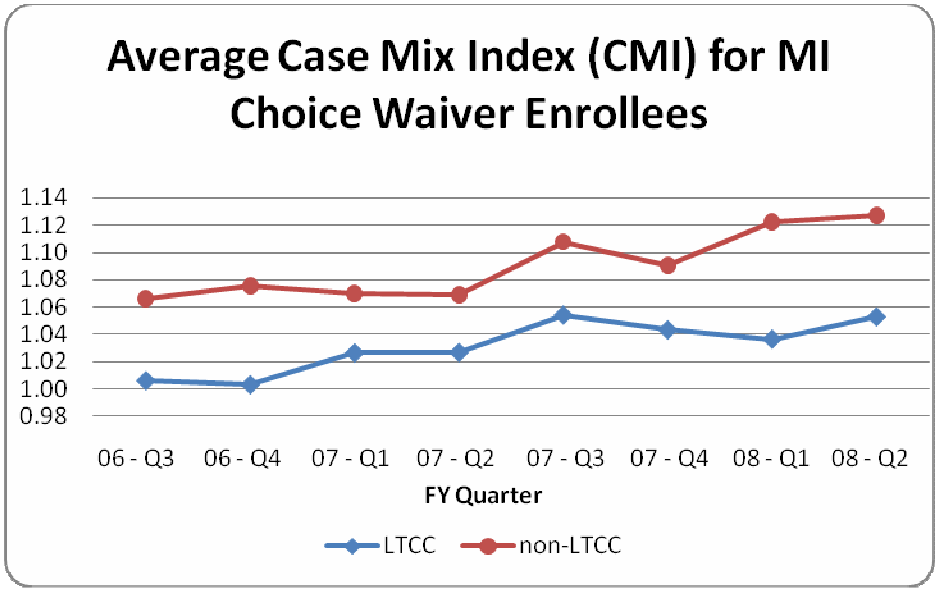
Hypothesis 3a: Increased acuity of Medicaid LTC beneficiaries

One of the evaluation hypotheses is that as Options Counselors performed functional assessments, the result would be more efficient use of program resources. Individuals with lower functional needs would be served in the community without MI Choice waiver services. As a result, measures of acuity for both the nursing facility population and the MI Choice waiver population were expected to increase as a result of the operation of the LTCC.

HMA did not receive any data on the acuity of the nursing facility population (as measured by the Minimum Data Set or MDS). HMA did receive acuity data, using the Minimum Data Set for Home Care (MDS-HC) for the waiver enrollees. Case Mix Index (CMI) scores were assigned using the Resource Utilization Group III Home Care (RUGIIIHC) classification scheme. The CMI data were reported by age cohort and did not distinguish the number of individuals that were enrolled in the waiver as part of the Special Memorandum of Understanding (SMOU) group. As a result, HMA excluded the SMOU waiver days in calculating the average case mix index by region.

Figure 12 shows that the CMIs have been increasing over time, which is an expected finding due to the capped funding for the waiver. Figure 12 also shows that historically the CMI for waiver enrollees in the non-LTCC regions has been higher than the CMI for waiver enrollees in the LTCC regions. (Since these data are averages, the larger size of the population in the non-LTCC counties is not a factor.) The early data indicate that the expected result did not occur; in fact, the opposite trend is present. This CMI difference between the LTCC and non-LTCC regions narrowed in fiscal year 2007, but has increased in fiscal year 2008. For the January-March 2008 period (Q2 of FY 2008), the gap was the largest it has ever been. While the case mix index in the non-LTCC regions is at an all-time high, the CMI in the LTCC regions has been relatively flat. However this outcome should be reviewed again when there are more quarters of available data.

Figure 12



Hypothesis 3b: Increased number of "adverse actions"

As previously noted, LTCCs became responsible for level of care determinations (LOCDs) as of November 1, 2007. These LOCDs are required when an individual seeks Medicaid funding for NF services or MIChoice waiver services, when an individual is transferred, or when there is a change in condition. Adverse actions represent clients denied access to long term care services, either NF or waiver, when the LOCD indicates that they do not meet the nursing facility level of care criteria. The evaluation hypothesis was that there would be an increase in the proportion of adverse actions in the LTCC counties, as the LTCCs would more strictly assess whether applicants for nursing facility or waiver services need NF level of care. An increase in adverse actions would keep people out of nursing facilities or the MIChoice waiver that never should have been admitted to these programs. The resultant savings would accumulate over successive quarters.

The data in Table 1 display the adverse actions from November 2007 through March 2009 for LTCC regions and non-LTCC regions. Table 1 indicates that for the first seventeen months after they assumed the LOCD function, the LTCC areas have a nearly double rate of adverse actions for individuals potentially entering nursing facilities than did the nursing facilities that perform the LOCD function in the non-LTCC areas (0.75% in the LTCC areas versus 0.39% in the non-LTCC regions). For waiver programs, the non-LTCC regions actually had a higher rate of adverse actions than the LTCC regions, at 6.07% versus 5.19%. However the LTCC regions outside of Wayne County had the highest rate of adverse actions for individuals seeking waiver services at 7.28%.

Table 1

Level of Care Determinations, Nov. 2007 to March 2009			
	Eligible	Not Eligible	Percent Not Eligible
Non-LTCC Regions			
Nursing Facilities	37,425	145	0.39%
Waiver	9,500	577	6.07%
Total	46,925	722	1.54%
All LTCC Regions			
Nursing Facilities	23,587	176	0.75%
Waiver	9,073	471	5.19%
Total	32,660	647	1.98%
Non-Detroit LTCC Regions			
Nursing Facilities	16,867	155	0.92%
Waiver	6,027	439	7.28%
Total	22,894	594	2.59%

Table 2 shows the more recent history of LOCD results. The difference in LOCD results between LTCC and non-LTCC regions has become even more pronounced.

Table 2

Level of Care Determinations, Oct. 2008 to March 2009			
	Eligible	Not Eligible	Percent Not Eligible
Non-LTCC Regions			
Nursing Facilities	10,170	29	0.29%
Waiver	2,764	132	4.78%
Total	12,934	161	1.24%
All LTCC Regions			
Nursing Facilities	6,465	67	1.04%
Waiver	2,624	194	7.39%
Total	9,089	261	2.87%
Non-Detroit LTCC Regions			
Nursing Facilities	4,673	58	1.24%
Waiver	1,950	192	9.85%
Total	6,623	250	3.77%

If the LTCC regions had the same results as the non-LTCC regions for the proportion of individuals seeking nursing facility found not eligible, there would have been 18, rather than 67 such determinations in this six month period, or a difference of 49 NF admissions. On an annual basis

there would be 98 additional individuals admitted to NFs in these counties. Analysis by OLTCSS indicates that the average number of nursing home days Medicaid pays for once an individual enters a nursing home under Medicaid is 398 days. The average Medicaid net cost of NF care per day in the 1th quarter of FY 2009 was $158. So the cost of Medicaid NF services for an additional 98 individuals would be about $6 million. It will take time for these savings to appear in the NF spending data.

The data in Table 2 also show that the LTCCs are finding that a higher proportion of those seeking waiver services do not in fact need NF level of care. There are additional cumulative savings from this result. This particular component of the analysis requires a note of caution. The existence of the LTCC as a point to seek information about long term care services may result in a higher number of individuals being screened for NF and waiver services. If this is the case, it is logical that a higher portion of those screened would not in fact need NF level of care services.

CONCLUSION

The methodology for this cost effectiveness analysis is not designed to produce any conclusions that the LTCC initiative had a direct effect on long term care spending. The analysis does, however, allow a review of changes in spending trend that might be *correlated* with LTCC activities.

Based on information from the most recent quarter for which reliable long term care service spending data were available, July to September 2008, the Long Term Care Connections pilot is correlated with an increase in the rate of growth of total long term care spending relative to the trend for non-LTCC areas. However for the LTCC regions other than the Detroit region, the growth in long term care spending was 0.7% lower than in the non-LTCC regions. Long term care spending for the non-Detroit LTCC regions for fiscal year 2008 totals $558 million. If the impact of the LTCC initiative is a reduction in spending for long term care services of 0.7% below trend (the July to September 2008 result), the annualized savings in service costs would be $3.9 million dollars (0.7% of $558 million). This is significantly lower than the $6.04 million spent on the LTCC program in these regions in FY 2008. As of September 2008 the LTCC initiative is not generating savings that offset the cost of the program, even in the most favorable regions.

However there are other factors that should be considered in estimating the future success of the initiative. Promising trends include increasing use of non-institutional long term care, a recent increase in the rate of transitions from nursing facility care in the LTCC regions, and a higher rate of adverse actions (denials) of Medicaid-funded nursing facility services, based on level of care determinations in the LTCC regions.

The LTCC agencies are more likely to find that individuals seeking nursing facility or MI Choice waiver services do not need nursing facility level of care. However the level of savings from this gatekeeper function is difficult to assess. The mere presence of the LTCC agency may result in a higher number of individuals being screened for NF or waiver services.

More promising is the higher rate of transitions of individuals out of nursing facilities to either the MI Choice waiver or to the community with adult home help services or even without Medicaid supports. Based on the difference in the rate of transitions in the LTCC regions and in other counties, the transitions accomplished by the LTCCs can be expected to generate a net savings in

long term care costs of more than $11 million per year. This component of savings by itself is sufficient to cover the costs of the LTCC agencies at the current rate of spending. When some net impact from the LOCD gatekeeper function is added to the equation, the LTCCs can be expected to generate sufficient savings in long term care costs to fully support their operations. The net result is not only a (small) cost savings to the state budget but also a better continuum of care for elderly and disabled individuals that need some degree of long term care supports and services.

APPENDIX A: COST EFFECTIVENESS HYPOTHESES

The LTCC model will be successful if moving to a single, coordinated system of information about LTC programs and services will result in efficiencies: right service level for needs. Persons who have complete information will use their own resources efficiently. The following are the resulting evaluation hypotheses and the proposed analyses to test each hypothesis:

1. Options Counselors will provide consumers with information and assistance in understanding and accessing community-based services, which will result in a decrease in Medicaid-reimbursed nursing facility bed days and more clients served by Medicaid through either the MI Choice waiver or other community-based services.
    a. Decrease in Medicaid-reimbursed nursing facility (NF) days, increased participation in waiver (if possible within ceiling) and increased Adult Home Help utilization.
    b. Increased transitions from nursing facilities (to waiver or to community without waiver services).

2. These changes in utilization will result in more persons served for the same or fewer dollars. Measurement is savings or projected savings (changes in healthcare costs from trend offset by the cost of the LTCC system).

3. Options Counselors determine functional eligibility, which will result in more efficient use of system resources. (The acuity measurements will be based on the Minimum Data Set (MDS) or the Minimum Data Set for Home Care (MDS-HC.)
    a. Higher acuity of NF residents in LTCC than non-LTCC counties and higher acuity of MI Choice Waiver enrollees in LTCC than non-LTCC counties.
    b. An increase in the number of "adverse actions" (clients denied access to services when they do not meet the level of care criteria). Adverse actions are for clients with lower levels of acuity in LTCC counties.

APPENDIX B: COST EFFECTIVENESS MEASURES: DATA FOR HYPOTHESES 1 THROUGH 3

Data were collected for each county and separately analyzed by LTCC and non-LTCC Counties, and by appropriate age cohorts and dates of service.

Evaluation Data	Data Source	Notes
Number of Medicaid NF days	HIPAA Healthcare Model	
Number of waiver days (or other appropriate unit of measurement)	HIPAA Healthcare Model	Paid claims
Number of individuals using Adult Home Help services (including Personal Care services)	HIPAA Healthcare Model	Paid claims
Number of non-waiver transitions (from NF to community w/o waiver)	OLTCSS Staff tracking of transition populations	
Number of transitions from NF to MI Choice (expect temporary increase)	OLTCSS Staff tracking of transition populations	
Number of transitions AFTER in NF for 100 days or more	OLTCSS Staff tracking of transition populations	**Note – These data were not received.**
Combined cost of Medicaid LTC services	HIPAA Healthcare Model	
Acuity of MI Choice waiver enrollees – MDS-HC	MICIS	
Acuity of Medicaid-funded NF residents - MDS	Health Care Association of Michigan	**Note – These data were not received.**
Cost of LTCC	OLTCSS accounting data	
Number of adverse actions resulting from LOCD determinations	OLTCSS Staff tracking	

Age Cohorts:

- 0 to 20
- 21 to 54 years
- 55 to 64 years
- 65 to 74 years
- 75 to 85 years
- Over 86 years

Time periods:

- Data by fiscal quarter starting with October 1, 2005. Fiscal year 2006 through March 2009.

Counties:

- LTCC areas are:
    - West Michigan: Allegan, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa
    - Southwest Michigan: Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, Van Buren
    - Upper Peninsula; Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Ontonagon, Schoolcraft
    - Detroit/Wayne: Wayne County zip codes in the following cities: Detroit, Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Shores, Grosse Pointe Woods, Hamtramck, Harper Woods, and Highland Park. (Zip codes are 48201 - 48219, 48221, 48223 - 48228, 48230, 48234, 48235, 48236, 48238.)
- Non-LTCC area: Wayne County zip codes not included above and all other counties.

APPENDIX C: METHODOLOGY & DATA SOURCES

Data were collected from Michigan Department of Community Health (MDCH) in September of 2008. Data consisted of three populated files: 1) Data on "Days" for NF, Waiver, and Home Help. 2) "Dollars" representing spent amount in the areas of NF, Waiver, Home Help, Hospice and other long term care services. 3) Transitions file listing each transition by date and indicating transition to waiver or to community without waiver supports. Excluding the transition file, each data source included quarterly data representing timeframes from Oct 2005 (Q1 2006) through December 2008 (Q1 2009), the county of residence, and the age band of the recipient. The beginning of fiscal year 2006 was chosen as the starting point so that we would have one full year of data before the beginning of any Long Term Care Connections activities.

In addition we received files with detailed information on expenditures from each of the LTCC sites and a file with information on the number and proportion of adverse actions resulting from LOCDs, files with information about NF and AHH rate increases. Data files for transitions and LTCC pilot expenditures included more recent data through April-June (Q3 2008) that were used within the analysis.

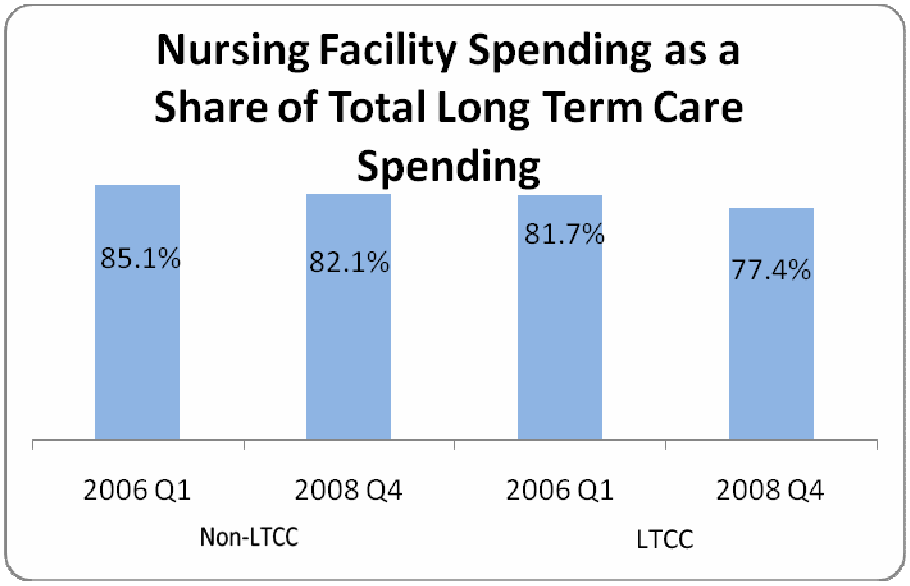
Data were analyzed to split days and dollars in quarters represent above, by age band, and by county. Counties were rolled into LTCC location. The analysis was build upon the changes in days and dollars within the LTCC regions and non-LTCC regions. To account for lags between the date of service and the data of payment, MDCH provided and applied completion factors that were specific to the various types of long term care services. However HMA would note that the lag factors were from claims cycles from FY 2004 and earlier. To the extent that the lags have changed, the data for the most recent quarters may be inaccurate. Also lags in submission of claims may vary geographically. This analysis used statewide lag factors which may distort geographic comparisons if the lags vary by region.

As described above, in many instances the analysis split the LTCC region with and without Detroit. The rationale for this is that the Detroit/Wayne LTCC may deal with a greater proportion of clients that lack or have reduced levels of the informal community supports that facilitate transitions from nursing facilities or allow them to remain outside of nursing facilities.

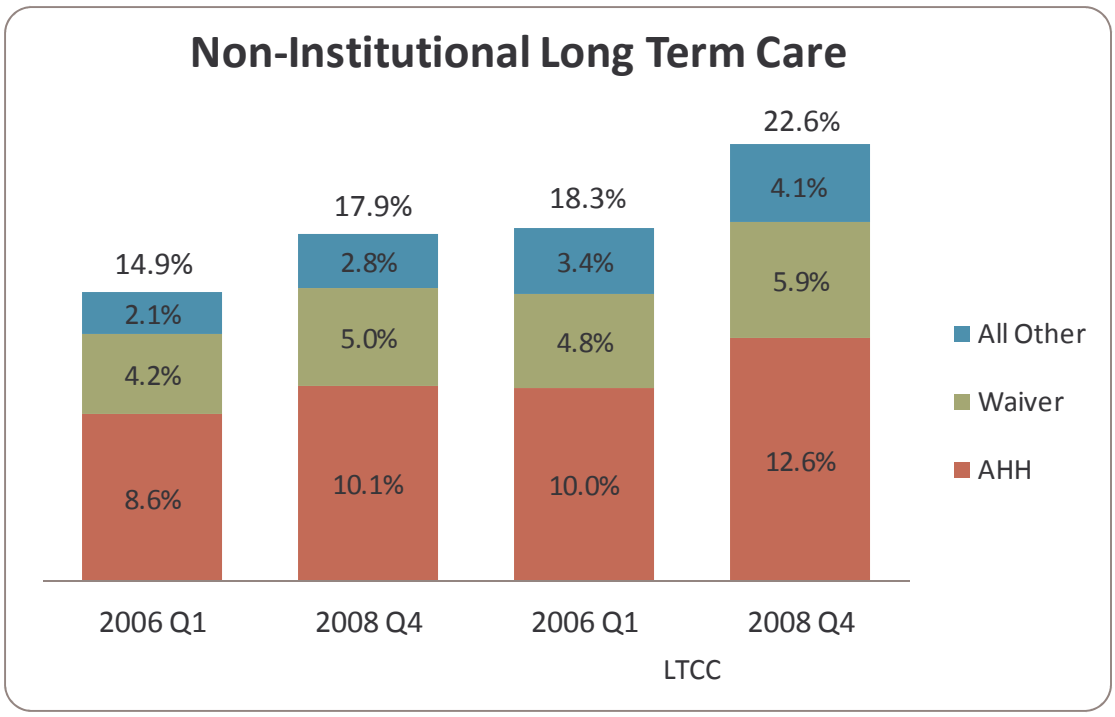
APPENDIX D: ADDITIONAL DATA

Distribution of Long Term Care Costs

The distribution of long term care costs in Michigan is more heavily biased toward institutional long term care than the national average. As previously noted, the data for this report exclude hospice and private duty nursing, which are also part of the long term care continuum, but not as amenable to influence by the LTCCs.



As seen in the chart above, in the aggregate nursing facility costs represent about 80 percent of long term care spending in Michigan. The proportion is lower for the LTCC regions than for the non-LTCC regions. The data do indicate some movement from institutional to non-institutional long term care in both areas over time. The data also indicate a greater decrease in institutional long term care spending for the LTCC regions than for the non-LTCC regions.



The distribution of non-institutional LTC service expenses is similar between the LTCC and non-LTCC areas of the state, but there are differences. The chart above shows that spending on adult home help (AHH) services is proportionately much greater in the LTCC areas.